

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application

No. 10/649,552

For: AVOIDING PPP TIME-OUTS
DURING IPCG NEGOTIATIONS

Idreas Mir

Examiner: William J. Goodchild

Filed: August 26, 2003

Group No. 2145

AMENDMENT AFTER ALLOWANCE PURSUANT TO 37 CFR § 1.312

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

This Amendment is submitted under 37 CFR § 1.312(a) and, in compliance with MPEP 714.16, is being submitted on or before payment of the issue fee. Please enter the following amendments to the above-identified application.

Please enter amendment.

Thank You,

WJG

0625/2008

PENDING CLAIMS AS AMENDED

1. (Previously Presented) A computer-implemented method for extending a protocol synchronization period between a Point-to-Point Protocol (PPP) client and a PPP server, wherein the PPP server is located on a wireless communication device, the method comprising:

generating a negative acknowledgment message at the PPP server in response to an Internet Protocol Control Protocol (IPCP) configuration request from the PPP client, wherein the IPCP configuration request comprises a requested IP address parameter, wherein the generating comprises including supplemental IPCP information instead of an IP address in response to the requested IP address parameter and deliberately excluding an IP address in order to extend the protocol synchronization period, wherein the supplemental IPCP information comprises a type of address different from a potentially valid IP address assignable to the PPP client for establishing a PPP communication link; and

generating an acknowledgement message at the PPP server in response to the IPCP configuration request from the PPP client if the PPP server has received all required parameters to complete the protocol synchronization period.

2. (Previously Presented) The method of Claim 1, further comprising:

generating a new negative acknowledgment message at the PPP server in response to a repeated IPCP configuration request from the PPP client, wherein the new negative acknowledgement message includes different supplemental IPCP information from a previous negative acknowledgement message and further deliberately excludes an IP address.

3. (Previously Presented) The method of Claim 1, further comprising:

generating a new negative acknowledgment message at the PPP server in response to a repeated IPCP configuration request from the PPP client, wherein the new negative acknowledgement message includes the same supplemental IPCP information as a previous negative acknowledgement message and further deliberately excludes an IP address.

4. (Previously Presented) The method of Claim 1, wherein the supplemental IPCP information comprises a Domain Naming System (DNS) address.

5. (Previously Presented) The method of Claim 1, wherein the supplemental IPCP information comprises a Windows Internet Naming Service (WINS) address.

6. (Previously Presented) Apparatus for extending a protocol synchronization period between a Point-to-Point Protocol (PPP) client and a PPP server, wherein the PPP server is located on a wireless communication device, the apparatus comprising:

at least one memory element; and

at least one processing element configured to execute a set of computer-implemented instructions stored in the at least one memory element, the set of computer-implemented instructions for:

generating a negative acknowledgment message at the PPP server in response to an Internet Protocol Control Protocol (IPCP) configuration request from the PPP client, wherein the IPCP configuration request comprises a requested IP address parameter, wherein the generating comprises including supplemental IPCP information instead of an IP address in response to the requested IP address parameter and deliberately excluding an IP address in order to extend the protocol synchronization period, wherein the supplemental IPCP information comprises a type of address different from a potentially valid IP address assignable to the PPP client for establishing a PPP communication link; and

generating an acknowledgement message at the PPP server in response to the IPCP configuration request from the PPP client if the PPP server has received all required parameters to complete the protocol synchronization period.

7. (Previously Presented) The apparatus of Claim 6, wherein the at least one processing element is located in an electronic device that hosts the PPP client.

8. (Previously Presented) The apparatus of Claim 6, wherein the at least one processing element is located in an electronic device that does not host the PPP client.

9. (Currently Amended) ~~An computer-implemented~~ apparatus for extending a protocol synchronization period between a Point-to-Point Protocol (PPP) client and a PPP server, wherein the PPP server is located on a wireless communication device, the apparatus comprising:

means for generating a negative acknowledgment message at the PPP server in response to an Internet Protocol Control Protocol (IPCP) configuration request from the PPP client, wherein the IPCP configuration request comprises a requested IP address parameter, wherein the generating comprises including supplemental IPCP information instead of an IP address in response to the requested IP address parameter and deliberately excluding an IP address in order to extend the protocol synchronization period, wherein the supplemental IPCP information comprises a type of address different from a potentially valid IP address assignable to the PPP client for establishing a PPP communication link; and
means for generating an acknowledgement message at the PPP server in response to the IPCP configuration request from the PPP client if the PPP server has received all required parameters to complete the protocol synchronization period.

10. (Previously Presented) A computer-implemented method for extending a protocol synchronization period between a Point-to-Point (PPP) client and a PPP server, comprising:

engaging the PPP client in an Internet Protocol Control Protocol (IPCP) negotiation to obtain IPCP parameters operable in a PPP communication link based on an initial configuration request message received from the PPP client, wherein the initial configuration request message comprises initial IPCP parameters comprising an initially-requested IP address; and

triggering the PPP client to generate subsequent configuration request messages comprising the initially-requested IP address based on corresponding negative acknowledgement messages excluding an IP address and including supplemental IPCP information instead of the IP address in order to extend the protocol synchronization period,

wherein the supplemental IPCP information comprises a type of address different from a potentially valid IP address assignable to the PPP client for establishing a PPP communication link.

11. (Previously Presented) The method of claim 10, further comprising triggering the PPP client to avoid dropping a supplemental IPCP information parameter from the subsequent configuration request messages to avoid a supplemental IPCP information request timeout.

12. (Previously Presented) The method of claim 11, wherein triggering the PPP client to avoid dropping the supplemental IPCP information further comprises including subsequent supplemental IPCP information in the negative acknowledgement message, wherein the subsequent supplemental IPCP information comprises a type of address different from a potentially valid IP address assignable to the PPP client for establishing a PPP communication link.

13. (Previously Presented) The method of claim 11, wherein triggering the PPP client to avoid dropping the supplemental IPCP information further comprises including arbitrary subsequent supplemental IPCP information in the negative acknowledgement message.

REMARKS

Upon review of the subject application, Applicant discovered a typographical error in Claim 9 that is corrected by this Amendment. Applicant believes that no new matter is added to the application nor is the scope of the claimed invention affected.

Applicant submits that the above amendment is simply the correction of the clarification of terminology. A brief discussion setting forth the reasons for the change to Claim 9 is set forth below. Applicant believes the amendment made herein is not a substantive change and does not require additional work on the part of the Office. Therefore, entry of this Amendment is respectfully requested.

Specifically, Claim 9 is an apparatus claim that starts with the existing terminology "*A computer-implemented apparatus*". By this amendment, Applicants request this terminology be changed to "*An apparatus*", as the existing term was mistakenly copied from the counterpart method claim 1. The existing terminology "*computer-implemented apparatus*" is not ordinarily used as a term of art.

Should the Examiner have any questions or comments regarding these amendments, he/she is cordially invited to telephone the undersigned at his convenience.

Dated: June 19, 2008

Respectfully submitted,

By: /Abdollah Katbab/

Abdollah Katbab Reg. No.45,325

(858) 651-4132

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 651-4125
Facsimile: (858) 658-2502